

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1 (currently amended). A mobile terminal comprising:

a radio subsystem operable to receive a radio signal;

a ranging signal receiving subsystem for receiving digital television (DTV) signals for use as terrestrial ranging signals, a DTV signal comprising synchronization bursts which are equally spaced in time;

a ~~common~~ filter operatively connected to and shared in common with both the radio subsystem and the ranging signal receiving subsystem, the ~~common~~ filter having a bandpass that is smaller than a bandwidth of the DTV signal; and

a correlation subsystem operatively connected to the ~~common~~ filter, the correlation subsystem operable to enable recovery of the synchronization bursts without demodulating the DTV signal by correlating the DTV signal with a known sequence that has been predistorted to account for the bandpass of the ~~common~~ filter.

2 (previously presented). The mobile terminal of claim 1 wherein the correlation subsystem correlates the DTV signal at least in part by searching a correlation window that is determined at least in part by an approximate location of the mobile terminal within a network.

3 (previously presented). The mobile terminal of claim 1 wherein the correlation subsystem correlates the DTV signal at least in part by performing multiple correlations at times separated by one over a known rate of occurrence of the synchronization bursts.

4 (original). The mobile terminal of claim 1 further comprising a shared mixer operatively connected to the radio subsystem and the ranging signal receiving subsystem.

5 (original). The mobile terminal of claim 4 further comprising a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem.

6 (original). The mobile terminal of claim 2 further comprising a shared mixer operatively connected to the radio subsystem and the ranging signal receiving subsystem.

7 (original). The mobile terminal of claim 6 further comprising a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem.

8 (original). The mobile terminal of claim 3 further comprising a shared mixer operatively connected to the radio subsystem and the ranging signal receiving subsystem.

9 (original). The mobile terminal of claim 8 further comprising a shared amplifier operatively connected to the radio subsystem and the ranging signal receiving subsystem.

10 (currently amended). A method of processing a digital television (DTV) signal for use as a terrestrial ranging signal in a mobile terminal implementing a terrestrial ranging signal receiver, the method comprising:

receiving the DTV signal, the DTV signal comprising synchronization bursts which are equally spaced in time;

passing the DTV signal through a ~~common~~ filter shared in common with both the ranging signal receiver and a radio subsystem of the mobile terminal, the filter having a bandpass that is smaller than the bandwidth of the DTV signal, but substantially equal to or greater than the bandwidth of a native radio signal; and

recovering the synchronization bursts without demodulating the DTV signal by correlating the DTV signal with a known sequence that has been predistorted to account for the bandpass of the ~~common~~ filter.

11 (original). The method of claim 10, wherein the recovering of the synchronization bursts is accomplished at least in part by searching a correlation window that is determined by an approximate location of the mobile terminal within a network.

12 (original). The method of claim 10 wherein the recovering of the synchronization bursts is accomplished at least in part by performing multiple correlations at times separated by one over a known rate of occurrence of the synchronization bursts.

13 (currently amended). Apparatus providing mobile terminal function and terrestrial ranging signal function, the apparatus comprising:

means for receiving a digital television (DTV) signal for use as a terrestrial ranging signal, the DTV signal comprising synchronization bursts which are equally spaced in time;

means for passing the DTV signal through a ~~common~~ filter shared in common with both the means for receiving a DTV signal and a radio subsystem of the apparatus, the filter having a bandpass that is smaller than the bandwidth of the DTV signal, but substantially equal to or greater than the bandwidth of a native radio signal; and

means for recovering the synchronization bursts without demodulating the DTV signal by correlating the DTV signal with a known sequence that has been predistorted to account for the bandpass of the ~~common~~ filter.

14 (original). The apparatus of claim 13 wherein the means for recovering further comprises means for searching a correlation window that is determined by an approximate location of the mobile terminal within a network.

15 (original). The apparatus of claim 13 wherein the means for recovering further comprises means for performing multiple correlations at times separated by one over a known rate of occurrence of the synchronization bursts.